

We claim:

1. A method for generating a single-use financial account identifier, comprising the steps of:
 - accessing a first data element, specific to an account;
 - accessing a second data element including transaction-specific data; and
 - combining said first data element and said second data element to produce said single-use financial account identifier.
2. The method of claim 1 wherein the step of accessing said first data element includes accessing an account identifier.
3. The method of claim 2 wherein said account identifier is alpha-numeric.
4. The method of claim 1 wherein the step of accessing said second data element includes accessing a time.
5. The method of claim 1 wherein the step of accessing said second data element includes accessing a payment amount.
6. The method of claim 1 wherein said step of accessing said second data element includes accessing a merchant identifier.
7. The method of claim 1 wherein the step of accessing said first data element includes encrypting said first data element.
8. The method of claim 7 wherein the encrypting step is based on a private key encryption technique.
9. The method of claim 1 wherein the combining step is based on a hashing function.

10. The method of claim 1 wherein the combining step includes encrypting said first data element and said second data element.

11. The method of claim 10 wherein the encrypting step is based on a private key encryption technique.

12. The method of claim 1, further comprising the step of accessing a third data element including a static account identifier, and wherein said combining step includes combining said third data element with said first data element and said second data element.

13. The method of claim 1, further comprising the step of updating said second data element to initialize for a future transaction.

14. A device for facilitating a financial account transaction, comprising:

a processing unit, said processing unit including a cryptographic processor;

an input unit connected to said processing unit for inputting information thereto;

a display unit connected to said processing unit for displaying a processing result therefrom; and

a memory device connected to said processing unit, said memory device containing a private cryptographic key, a first data element, a second data element and a program, adapted to be executed by said processing unit, to encrypt the first data element using the private cryptographic key and the second data element, modify the second data element, combine the encrypted first data element and the second data element to generate a single-use financial account identifier, and display the single-use financial account identifier using said display unit.

SUB
A-1
15. An apparatus for facilitating a financial account transaction, comprising:

a processing unit;

an input device connected to said processing unit for inputting a financial account identifier thereto;

a transmitting/receiving device connected to said processing unit for transmitting the financial account identifier for verification thereof and for receiving information regarding authorization of the transaction; and

an output device connected to said processing unit for outputting the information regarding authorization of the transaction,

wherein the financial account identifier is a single-use financial account identifier containing information specific to the transaction.

16. An apparatus for verifying a financial account identifier, comprising:

a processing unit, said processing unit including a cryptographic processor;

a communications unit, connected to said processing unit, for transmitting and receiving information regarding the financial account identifier; and

a memory device connected to said processing unit, said memory device containing a private cryptographic key, a first data element, a second data element and a program, adapted to be executed by said processing unit, to receive a single-use financial account identifier, extract therefrom a third data element and a fourth data element, decrypt the third data element using the private cryptographic key and the fourth data element, compare the decrypted third data element with the first data element in a first comparison, compare the fourth data element with the second data element in a second comparison, and verify the received financial account identifier in accordance with the first comparison and the second comparison.

17. A method for generating a single-use financial account identifier, comprising the steps of:

providing a memory device containing a private cryptographic key, a first data element, and a second data element;

encrypting the first data element using the private cryptographic key and the second data element;

modifying the second data element;

combining the encrypted first data element and the second data element to generate a single-use financial account identifier; and

displaying the single-use financial account identifier.

5114
a3
18. A method for facilitating a financial account transaction, comprising:

providing a processing unit;

inputting a financial account identifier to said processing unit;

transmitting the financial account identifier for verification thereof;

receiving information regarding authorization of the transaction based on said verification; and

outputting the information regarding authorization of the transaction,

wherein the financial account identifier is a single-use financial account identifier containing information specific to the transaction.

19. A method for verifying a single-use financial account identifier, comprising the steps of:

providing a memory device containing a private cryptographic key, a first data element and a second data element;

receiving said single-use financial account identifier;

extracting from said single-use financial account identifier a third data element and a fourth data element;

decrypting the third data element using the private cryptographic key and the fourth data element;

comparing the decrypted third data element with the first data element in a first comparison;

comparing the fourth data element with the second data element in a second comparison; and

verifying said single-use financial account identifier in accordance with the first comparison and the second comparison.

20. A device for providing a single-use financial account identifier, said device comprising:

a memory storing data representing a plurality of predetermined single-use financial account identifiers, data representing a status for each of said plurality of predetermined single-use financial account identifiers, and data representing a pointer to one of said plurality of predetermined single-use financial account identifiers;

an output device for presenting said single-use financial account identifier; and

a processor coupled to said memory and to said output device, said processor being configured to identify said single-use financial account identifier based on said data representing a pointer, said processor being further configured to transmit a signal to said output device to present said single-use financial account identifier.

21. A device according to claim 20, further comprising an input device adapted to transmit an input signal representing a request to present said single-use financial account identifier, wherein said processor is coupled to said input device and said processor is further configured to receive said input signal from said input device.

22. A device according to claim 20, wherein said processor is further configured to update said data representing a pointer and to update said data representing a status.

23. An apparatus for verifying a single-use financial account identifier, comprising:

a processing unit;

a communications unit, connected to said processing unit, for transmitting and receiving information regarding said single-use financial account identifier; and

a memory device connected to said processing unit, said memory device containing data representing a plurality of predetermined single-use financial account identifiers, data representing a status for each of said plurality of predetermined single-use financial account identifiers, and a program, adapted to be executed by said processing unit, to receive said single-use financial account identifier, compare said single-use financial account identifier with each of said plurality of predetermined single-use financial account identifiers to identify one predetermined single-use financial account identifier matching said single-use financial account identifier, and verify said single-use financial account identifier in accordance with said comparison and the data representing the status of said one predetermined single-use financial account identifier.

24. A method for providing a single-use financial account identifier, comprising the steps of:

providing a memory storing data representing a plurality of predetermined single-use financial account identifiers, data representing a status for each of said plurality of predetermined single-use financial account identifiers, and data representing a pointer to one of said plurality of predetermined single-use financial account identifiers;

identifying said single-use financial account identifier based on said data representing a pointer; and

transmitting a signal to an output device to present said single-use financial account identifier.

25. A method for verifying a single-use financial account identifier, comprising the steps of:

providing a memory device containing data representing a plurality of predetermined single-use financial account identifiers and data representing a status for each of said plurality of predetermined single-use financial account identifiers;

receiving said single-use financial account identifier;

comparing said single-use financial account identifier with said plurality of predetermined single-use financial account identifiers to identify one predetermined single-use financial account identifier matching said single-use financial account identifier; and

verifying said single-use financial account identifier in accordance with said comparison and the data representing the status of said one predetermined single-use financial account identifier.

ADD A4
all
AC